

REMARKS AND ARGUMENTS

The claims have been amended to more particularly describe and claim the invention.

Claim 1 has been amended to include a specific step, "with a trackable probe, locating at least three points on said acetabular implant..." This step is supported by the specification at page 25, line 19 through page 26, line 19. Note that this step is in addition to tracking the acetabular implant tool, and provides additional verification that the implant is correctly positioned. This additional step is not disclosed in the Kienzle reference, and has the advantage that it detects insecure installation or slippage of the implant relative to the pelvis which might otherwise occur after the trackable implant-bearing tool is removed. The applicants are not aware that this problem or the need for verification is disclosed in the prior art, or anywhere except in the applicant's disclosure.

Claim 5 has been amended to more explicitly recite the step of "securing a trackable marker to the femur by gripping the femur without penetrating through the outer cortical shell of the femur." This language is similar to language previously included in original claim 6. The cited reference does not disclose any such step. Although the reference does refer to the possibility of attaching a trackable marker to the femur, there is no disclosure in the reference of mounting the marker by gripping the femur without penetrating through the outer cortical shell of the femur. This specific advantageous method is described and discussed in the present application at page 12, line 30 through page 13 line 25 and on page 15 lines 10-30.

Claim 6 has been amended to specify that in one embodiment the marker may be attached to the femur by a non-penetrating clamp (supported on page 15, line 24); Claim 7 more particularly refers to an embodiment in which the marker is secured to the femur by a collar and ligature (which may be considered a particular species of clamp). These methods and steps are not disclosed in the reference.

Although no rejection has been made under section 103, some discussion of non-obviousness may be appropriate. It should be noted that the problems of penetrating the femur, and the advantages of a clamp or gripping attachment, are not to applicant's knowledge disclosed in the prior art (certainly not in the cited reference). The conventional method of attachment was, at the time of the invention, by penetrating bone screws (as discussed in the applicant's specification in the locations cited above). Where the motivation or the problem are found only in the applicant's disclosure, it is not proper to issue a section 103 rejection based on obviousness. Differently stated, the applicant's own disclosure (other than admissions of prior art in the "background" section) cannot form the basis for a proper 103 rejection. The discovery of a problem or the source of a problem may make an invention patentable even if the solution would be obvious, once the problem is discovered. Eibel Process Co. v. Minnesota and Ontario Paper Co., 261 US 45 (1923).

Even if the problem were known, it is not necessarily obvious that a gripping clamp or collar and ligature would be an obvious solution. The femur presents an unusual shape which is difficult to securely engage (particularly once the femoral head is surgically removed). Non-penetrating attachments are considered to be less secure and unstable on

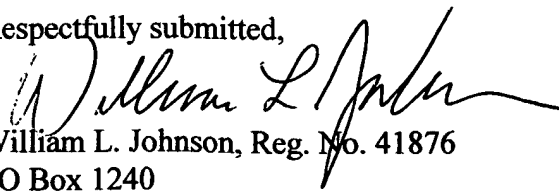
irregular surfaces which vary from patient to patient. Given that absolutely stability of attachment is critical for accurate tracking, it would not have been obvious at the time of the invention that a non-penetrating attachment to the femur could provide the requisite stability.

It is also noteworthy that the KSR case and guidelines do not require a different analysis in this case. The KSR analysis is appropriate (in the words of the Supreme Court), "when there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions. . ." KSR Int'l Co. v. Teleflex Inc., 550 U.S. ____ (2007). This does not describe the present invention. Bone screws were believed at the time of the invention to be perfectly adequate for fastening trackers to the femur, and offered secure attachment. The cited prior art does not provide any motivation to make a modification as the applicant has done.

Claim 8 has also been amended to include a femoral tracking marker and "non-penetrating means for securing said tracking marker to the femur of the patient." Both clamps and a collar and ligature (a species of clamp) are described in the specification as examples of non-penetrating means for securing the tracking marker (in locations cited above).

In conclusion, applicant believes that the claims as amended are in condition to be allowed. If any matters remain to be resolved, the Examiner is urged to contact the undersigned by telephone to discuss the matter.

Respectfully submitted,


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